

REMARKS

In the final Office Action, the Examiner rejected claims 1-15, 20-21, 26-39, 48-50, 54, 58, 59-61, 63-77, 82, 83, 88-99, 105, 106, 108-111, 115, and 119-126 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent Publication No. 2003/0004428 to Pless et al.; rejected claims 1-15, 20-21, 26-39, 48-50, 54, 58, 59, 61, 63-77, 82, 83, 88-99, 105, 106, 108-111, 115, and 119-126 under 35 U.S.C. § 103(a) as being unpatentable over Pless et al. in view of U.S. Patent No. 4,974,602 to Abraham-Fuchs et al.; rejected claim 107 under 35 U.S.C. § 103(a) as being unpatentable over Pless et al. or Pless et al., in view of Abraham-Fuchs et al.; and rejected claims 22 and 84 under 35 U.S.C. § 103(a) as being unpatentable over Pless et al. (or Pless et al. in view of Abraham-Fuchs et al.) in view of U.S. Patent Publication No. 2003/0074032 to Gliner.

Applicants respectfully traverse the Section 102(b) rejection based on Pless et al. because Pless et al. fails to disclose every element of each of independent claims 1 and 64. For example, independent claim 1 recites a combination of elements including, among other things, a processing unit configured to compare detected signals with a target signal, wherein the target signal includes one or more previously detected signals indicative of activity that precedes a neurological event. Pless et al. fails to disclose at least these claim elements. Indeed, the Examiner admits as much by stating that “Pless discloses the essential features of the claimed invention *except for explicitly specifying that the target signals be previously detected.*” (See Office Action at page 7; emphasis added).

Nonetheless, earlier in the Office Action, the Examiner states “the event detection algorithm incorporated by Pless and disclosed by Fischell comprises storing a target signal indicative of activity preceding a neurological event, in the form of a threshold.” (See Office Action at page 3). The Examiner further asserts that the threshold *inherently* includes a previously detected signal by stating that the “Examiner is interpreting a threshold as a constant level signal that is inherently set by some previous signal.” (See Office Action at page 3). Contrary to the Examiner’s contention, however, there is no teaching in Fischell et al. to suggest that the threshold necessarily includes a previously detected signal.

The fact that a certain characteristic may be present in the prior art is not sufficient to establish the inherency of that characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 U.S.P.Q.2d 1955, 1957 (Fed. Cir. 1993). “To establish inherency, the extrinsic evidence ‘must make clear that missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill.’” *In re Robertson*, 169 F.3d 743, 745, 49 U.S.P.Q.2d 1949, 1950-51 (Fed Cir. 1999) (citations omitted) (emphasis added).

Here, the threshold disclosed by Fischell et al. is not necessarily a previously detected signal. In fact, Fischell et al. refers to the threshold as “a preset threshold level” that “will typically be programmed to minimize the chance of missing a ‘real’ neurological event.” (See Fischell et al. column 19, lines 37-43 and column 20, lines 19-26). These disclosures, together with Fischell et al.’s failure to disclose or suggest how this preset and/or programmed threshold value is established, indicate that the

threshold in Fischell et al. does not *necessarily* include a previously detected signal. For this reason, with the Examiner's admission that Fischell et al. does not expressly disclose that the threshold includes a previously detected signal, Pless et al. and Fischell et al. fail to disclose every element of independent claim 1, or claims 2-15, 20-21, 26-39, 48-50, 54, 58, 59-61, and 63 that depend therefrom. And, the 35 U.S.C. § 102(b) rejection with respect to these claims is improper and should be withdrawn.

Similarly, claim 64 recites a combination including, comparing detected signals with a target signal, wherein the target signal includes one or more previously detected signals indicative of activity that precedes the neurological event. For the reasons above, Pless et al. fails to disclose at least these claim elements. Accordingly, the 35 U.S.C. § 102(b) rejection with respect to independent claim 64, and claims 65-77, 82, 83, 88-99, 105, 106, 108-111, 115, and 119-126 that depend therefrom, is improper and should be withdrawn.

Applicants respectfully traverse the Section 103(a) claim rejections based on Pless et al. in view of Abraham-Fuchs et al. In order to establish a prima facie case of obviousness under 35 U.S.C. § 103(a), three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine the reference teachings in a manner resulting in the claimed invention (see M.P.E.P. § 2143.01). Second, a reasonable expectation of success must exist (see M.P.E.P. 2143.02). Finally, the prior art reference or references, taken alone or

combined, must teach or suggest each and every element recited in the claims (see M.P.E.P. 2143.03).

No *prima facie* case of obviousness has been established with respect to claims 1-15, 20-21, 26-39, 48-50, 54, 58, 59, 61, 63-77, 82, 83, 88-99, 105, 106, 108-111, 115, and 119-126 for at least the reason that neither Pless et al. nor Abraham-Fuchs et al., taken alone or in combination, discloses or suggests every claim element. For example, independent claims 1 and 64 each recites a combination of elements including among other things, a target signal that includes one or more previously detected signals indicative of activity that precedes a neurological event. Neither Pless et al. nor Abraham-Fuchs et al., taken alone or in combination, teach or suggest at least these claim elements.

For the reasons noted above and as the Examiner has properly recognized in the Office Action, Pless et al. fails to disclose at least these elements. In an attempt to remedy this deficiency of Pless et al., the Examiner has suggested that it would have been obvious to combine the bioelectric current analysis arrangement of Abraham-Fuchs et al. with the system of Pless et al. to arrive at Applicants' claimed invention. Applicants respectfully disagree.

The arrangement of Abraham-Fuchs et al. discloses comparing an incoming signal with a stored signal pattern called a template. It does not, however, disclose or suggest that the template includes a previously detected signal indicative of activity *preceding* a neurological event. The Office Action refers to the Abstract as allegedly disclosing that the template signal is indicative of activity preceding a neurological

event. (See Office Action at page 7). Applicants have not found any such teaching in the Abstract.

In fact, the teaching in Abraham-Fuchs et al. is that the template does *not* include a signal indicative of activity preceding a neurological event. The arrangement of Abraham-Fuchs et al. only recognizes certain signal portions associated with particular neurological activity, the pathological significance of which is unclear. (See Abraham-Fuchs et al., column 6, lines 23-28). The system defines signal templates as particular portions of a signal that include markedly different waveforms or “spike-wave complexes.” (See Abraham-Fuchs et al., column 6, lines 23-36). However, the system defines a template as a particular portion of a signal containing that marked difference in activity. Abraham-Fuchs et al. does not disclose that the template is a signal that *precedes* the activity. For example, Figure 2 of Abraham-Fuchs et al. illustrates a template that includes the shaded portion corresponding to a markedly different signal than signals that precede and follow S2 and S3. The S2-S3 complex is therefore chosen as a template, without the preceding signal S1. (See col. 6, lines 23-32.)

Thus, the signal template disclosed in Abraham-Fuchs et al., which is defined simply as portions of a signal that differ markedly from preceding and following signals, does not constitute a target signal that includes one or more previously detected signals indicative of activity that *precedes* a neurological event.

Because neither Pless et al. nor Abraham-Fuchs et al., taken alone or in combination, discloses or suggests every claim element of independent claims 1 or 64, or claims 2-15, 20-21, 26-39, 48-50, 54, 58, 59, 61, 63, 65-77, 82, 83, 88-99, 105, 106,

108-111, 115, and 119-126 that depend therefrom, the 35 U.S.C. § 103(a) rejection of these claims is improper and should be withdrawn.

Applicants respectfully traverse the 35 U.S.C. § 103(a) rejections of claims 22, 84, and 107. Each of these claims depends from one of either claim 1 or claim 64. The secondary applied references do not remedy the deficiencies of Pless et al. or Fischell described above. Accordingly, the 35 U.S.C. § 103(a) rejection of these claims is improper and should be withdrawn.

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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